TAKSHASHILA

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Implementation of Pune's City Parking Policy

In response to the draft public parking policy of Pune Municipal Corporation

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EXECUTIVE SUMMARY

The draft parking policy of the PMC is based on progressive economic and well as urban governance ideas. However, the key to the success of this policy lies in the implementation. This advisory recommends the use of accessible technology along with the adoption of a networked governance model for this purpose.

It is essential for consistency and ease of operation for the user that the PMC provide explicit specifications in its terms of contract with the private contractors. The PMC should define the key aspects which concern the users and can leave the implementation of individual systems to the private contractors. The key aspect is that it should be a self-paying, cash-less system. All the policy objectives such as adaptive pricing, peak-hour rates, etc. depends on availability of credible and real-time data. Only a self-paying, cash-less system can ensure this at scale.

The public transport system needs to be enhanced before or at the same time as the implementation of this policy. This is especially true for Zone A which will have the highest parking rates. The cooperation of people for this policy (and its success) depends on the improvement in public transport and its perception amongst the people at the time of implementation.

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1. METHOD OF PARKING FEE COLLECTION

The terms and conditions for offering contracts to private players makes the private players responsible for deciding the method of parking fee collection. Some board guidelines are provided where they will be required to setup IT systems for accepting mobile and e-wallet based payments and provide access to real time data.

The private contractors are going to be the primary interface through which the people will interact with the new parking system. It is critical that this be well thought out as the public perception (and therefore the success) of the entire policy depends on how well the system gets implemented on the ground.

The city will be divided into many parking districts which might be managed by different private contractors. There should not be a case where each contractor implements a system that is very different from the other. It is therefore recommended that the exact specifications should be defined by the PMC in detail before awarding the contracts. The contractors should be free to implement their own systems as long as they adhere to these interface specifications. The key areas that need to be defined are the user-interface for paying the parking fee, getting the free slots information, reporting issues, etc. A sample interface definition is provided in the Annexure. This will ensure that the user experience is consistent across parking districts and there is minimum confusion when the new system in implemented.

The second key aspect of the implementation is that it should be cash-free. Cash creates issues in accountability¹ as well as issues with real time tracking of the transactions. It also results in delayed and inaccurate data. If a sophisticated pricing scheme has to be implemented (like peak hour pricing, night pricing) then the availability and reliability of data is critical. A fallback mechanism using cash should be available but should be dis-incentivised enough so that it does not become the dominant method of payment.

Having a cash-less system does not need complex infrastructure. Instead of creating expensive and difficult to maintain infrastructure (like parking meters, e-payment kiosks, etc.) we must leverage the ubiquitous availability of mobile phones for this purpose. A system which can be used through Mobile App or SMS would enable almost everyone to pay for parking easily. This has the added benefit of reducing the friction between the parking attendant and the user (more likely as the parking rates will be hiked).

The third key aspect is that it should be scalable. Hence the system should be based on self-payment. Users should be able to park their vehicle and then pay for the parking themselves using their phone. No attendant should be needed to be present all the time. The attendants/enforcement personal should only be needed to make rounds and fine/tow away unpaid vehicles.

The fourth and final key aspect is the availability of real time status to the users. A user should able to check on her phone if there is parking available on a particular street. Again this should be enabled through Mobile App as well as SMS. This will help reduce the time people spend searching for a parking space, causing significant savings in fuel consumption as well reducing congestion.

2. AVAILABILITY OF PUBLIC TRANSPORT

Though this draft policy is about parking only, public transport and parking are invariably linked together. Without a dramatic improvement in public transport it will be very difficult to ensure a smooth acceptance of any paid parking policy by the general public.

Figure 1. Interdependence of cost of parking with quality of public transport

Intermediate	Ideal	
Good public transport and cheap parking	Good public transport and optimal cost of parking	
Current	Untenable	
Poor public transport and cheap parking	Poor public transport and optimal cost of parking	

Chart: Siddarth Gore/Takshashila

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Though the PMC has been doing great work with the Rainbow BRT², there has not been much noticeable improvement in the PMPML functioning³. The costs of paid parking will be highest in the CBD (central business district) while the benefits of the BRT are currently limited to the Zone B and Zone C. Though this makes sense at the overall city level, it may create local asymmetry. In order to alleviate that asymmetry some measures need to be taken specifically for Zone A. Implementing a strict paid parking policy with having a good public transport infrastructure will lead us in the untenable region as shown in the figure above. However, the parking policy implementation should not be contingent upon the public transport improvements. In fact, implementing a strict parking policy may create enough public pressure to improve the public transport system of Pune.

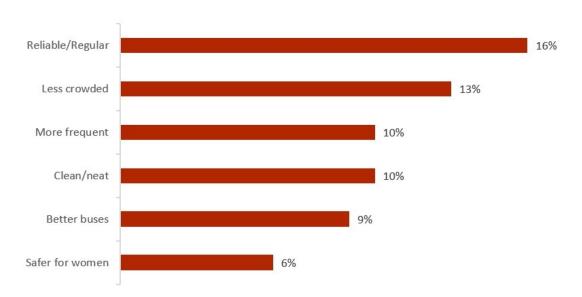


Figure 2. Reasons for switching from two wheelers to public transport

The EMBARQ⁴ report lists the reason why two-wheeler owner would shift to public transport.

The first key aspect is the reliability of the buses. The lack of real-time information is coming out to be the most prominent reason why people are unwilling to shift to public transport. This is important for low frequency routes (every 15 minutes or slower). The PMPML should ensure that every bus has a tracking device and that data is available easily to the commuter.

The second key aspect is to make it simple for someone to understand the public transport structure. A well designed map will be a necessity for this. The map

should distinguish the different lines based on the frequency. A mobile application which has all the information which is not outdated is also a useful tool for this.

The third aspect is that of providing more buses to the Zone A and ensuring smooth traffic flow on key roads of the central business district. This is will need detailed route study by the PMPML and therefore is not part of this document. None the less it is an essential part of the overall implementation process. Reliable data on the usage of various bus routes will also be necessary for this planning activity.

3. PARKING MANAGEMENT CELL - ORGANISATION

A separate cell for parking is planned with Municipal Commissioner as the head and an officer each for Finance & Administration, Planning & Implementation, Operations & Enforcement and Communications.

The Operations & Enforcement member would be responsible for maintaining essential infrastructure like parking spot markings, signs, making sure parking spots are not dug up, etc. This member needs to have enough authority and knowledge of all the departments on the PMC as well as other agencies like MSEB, MNGL, etc. which might affect the parking space availability. Therefore, it is recommended that this member(s) should be from the roads department or the encroachment department.

This recommendation is in line with the new concept of networked governance where small teams consisting of people from different departments are created to resolve issues quickly and without the need for doing up and down the hierarchy each time.

4. ANNEXURE

4.1 Interface definition for SMS based self-paying system for parking

All parking slots (either on-road or off-road) will have a unique number painted on them.

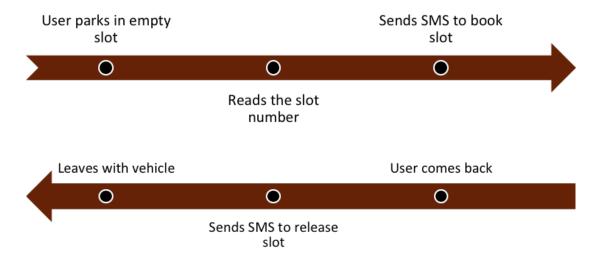
Table 1. Sample SMSes

Action	Message	Number
While parking	START <slot number=""></slot>	<pmc parking=""></pmc>
While Leaving	STOP <slot number=""></slot>	<pmc parking=""></pmc>
While Checking	CHECK <street lot="" name="" parking=""></street>	<pmc parking=""></pmc>
While Reporting Issue	REPORT <slot number=""> <issue description=""></issue></slot>	<pmc parking=""></pmc>

4.2 Payment Mechanisms

- All payments linked with mobile number.
- Recharge using cash like pre-paid mobile phones
- Recharge using net-banking or credit cards
- An initial credit (or 100 rupees) will help with the on-boarding of new users
- For cash based payments, coupons should be available at various places which can be stuck to the vehicle. There should be a discount for paying with mobile to dis-incentivise this method of payment.

4.3 Sequence of steps while parking and leaving



5. REFERENCES

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